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Subject: Example of a SMDP
Date: Wednesday, January 22, 2014 2:49:27 PM
Attachments: [Tropicana R&H- SMDP 9-17-13.docx](#)
[image002.png](#)

Brian asked me to send out an example of a scientific management decision point (SMDP) document that we recently used at R&H Tropicana because he is interested in doing something similar at Falcon Refinery. The SMDP is typically done at the conclusion of the Screening Level Ecological Risk Assessment (SLERA). Here is guidance on a SMDP from Ecological risk assessment guidance (1997).

2.4 SCIENTIFIC/MANAGEMENT DECISION POINT (SMDP)

At the end of Step 2, the lead risk assessor communicates the results of the preliminary ecological risk

assessment to the risk manager. The risk manager needs to decide whether the information available is

adequate to make a risk management decision and might require technical advice from the ecological risk

assessment team to reach a decision. There are only three possible decisions at this point:

- (1) There is adequate information to conclude that ecological risks are negligible and therefore no need for remediation on the basis of ecological risk;
- (2) The information is not adequate to make a decision at this point, and the ecological risk assessment process will continue to Step 3; or
- (3) The information indicates a potential for adverse ecological effects, and a more thorough assessment is warranted.

Note that the SMDP made at the end of the screening-level risk calculation will not set a preliminary

cleanup goal. Screening ecotoxicity values are derived to avoid underestimating risk. Requiring a cleanup based solely on those values would not be technically defensible.

The risk manager should document both the decision and the basis for it. If the risk characterization

supports the first decision (i.e., negligible risk), the ecological risk assessment process ends here with

appropriate documentation to support the decision. The documentation should include all analyses and

references used in the assessment, including a discussion of the uncertainties associated with the HQ and

HI estimates.

For assessments that proceed to Step 3, the screening-level analysis in Step 2 can indicate and justify

which contaminants and exposure pathways can be eliminated from further assessment because they are

unlikely to pose a substantive risk. (If new contaminants are discovered or contaminants are found at

higher concentrations later in the site investigation, those contaminants might need to be added to the

ecological risk assessment at that time.)

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U.S. EPA must be confident that the SMDP made after completion of this calculation will protect the

ecological components of the environment. The decision to continue beyond the screening-level risk

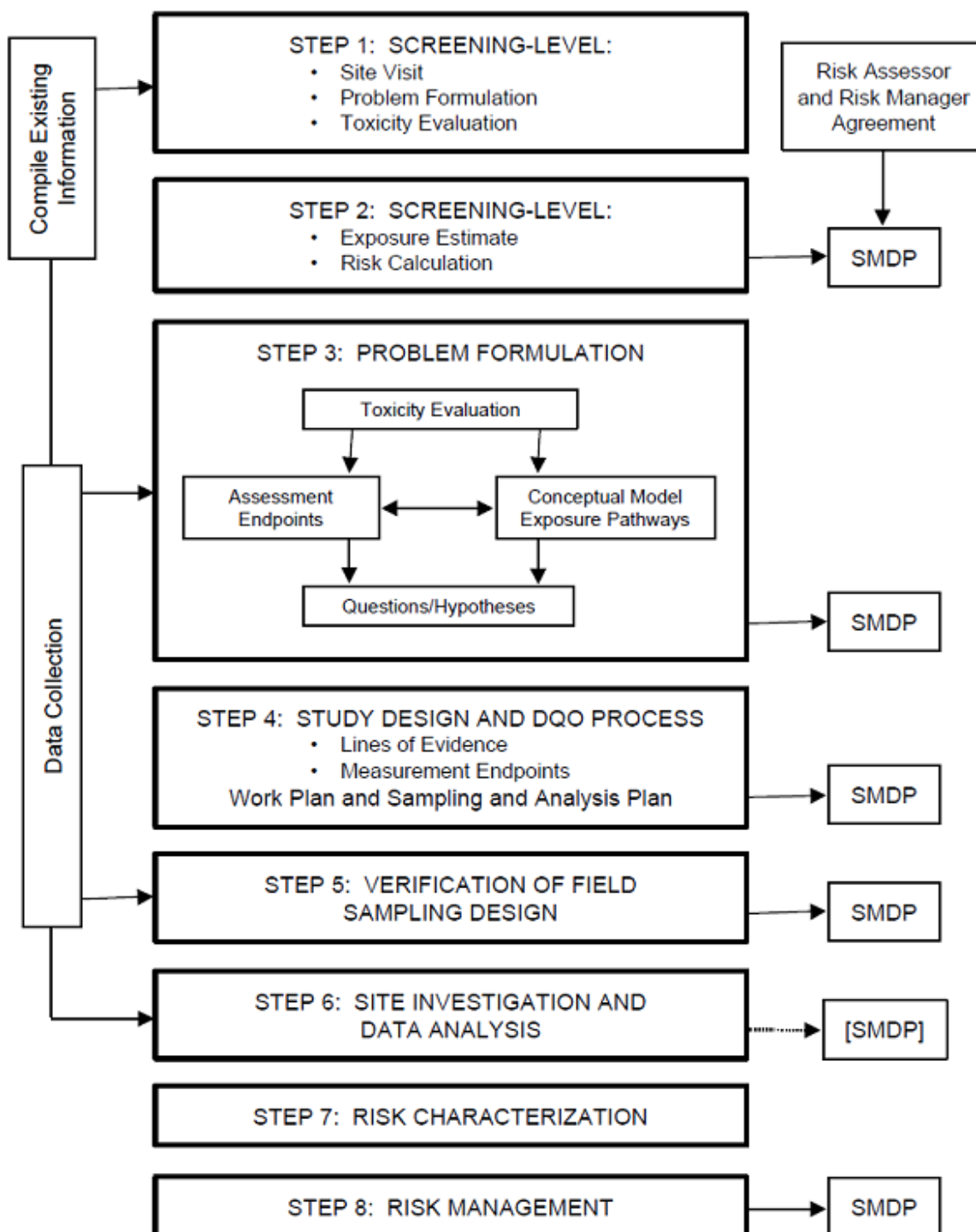


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calculation does not indicate whether remediation is necessary at the site. That decision will be made in Step 8 of the process.

Here is a outline of the 8 step ERA process.

EXHIBIT I-2
Eight-step Ecological Risk Assessment Process for Superfund



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